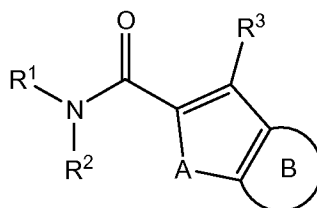


AMENDMENT TO THE CLAIMS

Applicants respectfully request that claims be amended without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents. The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently amended) A compound of the formula (I):



1

in which

R¹ represents 1-azabicyclo[2.2.2]oct-3-yl,

R² represents hydrogen or C₁-C₆-alkyl,

R³ represents hydrogen, halogen or C₁-C₆-alkyl,

A represents oxygen or sulfur,

and

the ring B represents benzo, ~~pyrido~~, pyrimido, pyrimidazo or pyridazino which is ~~are~~ optionally substituted by a radicals selected from the group consisting of ~~hydrogen~~, halogen, C₁-

C₆-alkanoyl, carbamoyl, cyano, trifluoromethyl, trifluoromethoxy, nitro, amino, C₁-C₆-acylamino, C₁-C₆-alkyl, C₁-C₆-alkoxy, C₁-C₆-alkylthio, C₁-C₆-alkylamino, heteroarylcarbonylamino, arylcarbonylamino, C₁-C₆-alkylsulfonyl-amino, di(C₁-C₄-alkylsulfonyl)amino, arylsulfonylamino, di(arylsulfonyl)amino, C₃-C₆-cycloalkylcarbonylmethyl, 1,3-dioxo-propane-1,3-diyl, amino(hydroxyimino)methyl and benzo, or a salt, a solvate or a solvate of a salt thereof.

2. (Currently amended) A compound of the formula (I) as claimed in claim 1, in which

R¹ represents 1-azabicyclo[2.2.2]oct-3-yl,

R² represents hydrogen or C₁-C₆-alkyl,

R³ represents hydrogen, halogen or C₁-C₆-alkyl,

A represents oxygen or sulfur,

and

the ring B represents benzo, ~~pyrido~~, pyrimido, pyridazo or pyridazino which is ~~are~~ ~~optionally~~ substituted by a radicals selected from the group consisting of ~~hydrogen~~, halogen, formyl, carbamoyl, cyano, trifluoromethyl, trifluoromethoxy, nitro, amino, formamido, acetamido, (C₁-C₆-alkyl, (C₁-C₆)-alkoxy, (C₁-C₆)-alkylthio and benzo, or a salt, a solvate or a solvate of a salt thereof.

3. (Currently amended) A compound of the formula (I) as claimed in claim 1, in which

R¹ represents 1-azabicyclo[2.2.2]oct-3-yl,

R² represents hydrogen,

R³ represents hydrogen, chlorine, fluorine or methyl,

A represents oxygen or sulfur,

and

the ring B represents benzo ~~or pyrido, where benzo or pyride is optionally~~ which is substituted by 1 to 3 radicals selected from the group consisting of ~~hydrogen~~, halogen, formyl, carbamoyl, cyano, trifluoromethyl, trifluoromethoxy, nitro, amino, formamido, acetamido, C1-C4-alkyl, C1-C4-alkoxy, C1-C4-alkylthio, C1-C4-alkylamino, furylcarbonylamino, phenylcarbonylamino, methylsulfonylamino, di(phenylsulfonyl)amino, cyclopropylcarbonylmethyl, 1,3-dioxapropane-1,3-diyl, amino(hydroxyiminio)methyl and benzo,

or a salt, a solvate or a solvate of a salt thereof.

4. (Original) A compound as claimed in claim 1 of the formula (I), where

R¹ represents (3R)-1-azabicyclo[2.2.2]oct-3-yl, and

R², R³, A and the ring B are as defined in claim 1.

5. (Currently amended) A compound as claimed in claim 1 of the formula (I), where

R¹ represents (3R)-1-azabicyclo[2.2.2]oct-3-yl, and

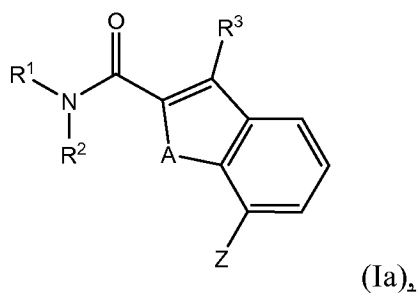
R², and R³ represent hydrogen,

A represents sulfur,

and

the ring B represents benzo or pyrido, where benzo and pyrido are optionally which is substituted by 1 to 3 radicals selected from the group consisting of ~~hydrogen~~, halogen, cyano, trifluoromethyl, trifluoromethoxy, nitro, amino, formamido, acetamido and C₁-C₄-alkyl, or a salt, a solvate or a solvate of a salt thereof.

6. (Currently amended) A compound ~~as claimed in claim 1~~ of the formula Ia:



in which

R¹ represents 1-azabicyclo[2.2.2]oct-3-yl,

R² represents hydrogen or C₁-C₆-alkyl,

R³ represents hydrogen, halogen or C₁-C₆-alkyl,

A represents oxygen or sulfur,

and

Z represents ~~hydrogen~~, halogen, formyl, carbamoyl, cyano, trifluoromethyl, trifluoromethoxy, nitro, amino, formamido, acetamido, C₁-C₆-alkyl, C₁-C₆-alkoxy, C₁-C₆-alkylthio, C₁-C₆-alkylamino, heteroaryl-carbonylamino, arylcarbonylamino, C₁-C₄-

alkylsulfonylamino, di(arylsulfonyl)amino, C3-C6-cycloalkylcarbonylmethyl or amino(hydroxyimino)methyl,

or a salt, a solvate or a solvate of a salt thereof.

7. (Currently amended) A compound as claimed in claim [[1]] 6 of the formula (Ia),
in which

R¹ represents 1-azabicyclo[2.2.2]oct-3-yl,

R² represents hydrogen,

R³ represents hydrogen, chlorine, fluorine or methyl,

A represents oxygen or sulfur,

and

Z represents ~~hydrogen~~, halogen, formyl, carbamoyl, cyano, trifluoromethyl, trifluoromethoxy, nitro, amino, formamido, acetamido, methyl, ethyl, methoxy, ethoxy, C1-C4-alkylamino, furylcarbonylamino, phenylcarbonylamino, methylsulfonylamino, di(phenylsulfonyl)amino, cyclopropylcarbonylmethyl or amino(hydroxyimino)methyl,
or a salt, a solvate or a solvate of a salt thereof.

8. (Currently amended) A compound as claimed in claim [[1]] 6 of the formula (Ia),
in which

R¹ represents (3R)-1-azabicyclo[2.2.2]oct-3-yl,

R² represents hydrogen,

R³ represents hydrogen, chlorine, fluorine or methyl,

A represents oxygen or sulfur,

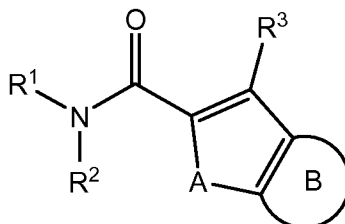
and

Z represents ~~hydrogen~~, halogen, formyl, carbamoyl, cyano, trifluoromethyl, trifluoromethoxy, nitro, amino, formamido, acetamido, methyl, ethyl, methoxy, ethoxy, C1-C4-alkylamino, furylcarbonylamino, phenylcarbonylamino, methylsulfonylamino, di(phenylsulfonyl)amino, cyclopropylcarbonylmethyl or amino(hydroxyimino)methyl, or a salt, a solvate or a solvate of a salt thereof.

9. (Withdrawn) A process for preparing compounds of formula (I) as claimed in claim 1, characterized in that compounds of the formula



in which R^1 and R^2 are as defined in claim 1 are reacted with a compound of the formula



(III),

in which

R^3 , A and the ring B are as defined in ~~claim 1~~ and

X represents hydroxyl or a suitable leaving group,

in an inert solvent, if appropriate in the presence of a condensing agent and if appropriate in the presence of a base.

10. (Cancelled)

11. (Currently amended) A medicament comprising at least one of the compounds as claimed in any of ~~claims 1 to 8~~ claims 6-8 in a mixture with at least one pharmaceutically acceptable, essentially nontoxic carrier or excipient.

12. (Withdrawn) The use of compounds as claimed in any of claims 1 to 8 for preparing a medicament for improving perception, concentration, learning and/or memory.

13. (Cancelled)

14. (Cancelled)

15. (Withdrawn) A method for controlling impairments of perception, concentration, learning and/or memory humans or animals by administering an effective amount of a compound as claimed in claims 1 to 8.

16. (New) The compound of claim 6 wherein A represents oxygen.

17. (New) The compound of claim 7 wherein A represents oxygen.

18. (New) The compound of claim 8 wherein A represents oxygen.

19. (New) The compound of claim 6 wherein A represents sulfur.
20. (New) The compound of claim 7 wherein A represents sulfur.
21. (New) The compound of claim 8 wherein A represents sulfur.
22. (New) The compound of any of claims 6-8 and 16-21 wherein Z is selected from the group consisting of: halogen, cyano, trifluoromethyl, trifluoromethoxy, methyl, ethyl, methoxy, and ethoxy.
23. (New) N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-7-fluoro-1-benzofuran-2-carboxamide.
24. (New) N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-5-fluoro-1-benzothiophene-2-carboxamide.
25. (New) N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-5,7-difluoro-1-benzothiophene-2-carboxamide.
26. (New) N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-5-fluoro-1-benzofuran-2-carboxamide.

27. (New) N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-5-chloro-1-benzofuran-2-carboxamide.
28. (New) N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-5,7-difluoro-1-benzofuran-2-carboxamide.
29. (New) N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-7-fluoro-1-benzothiophene-2-carboxamide.
30. (New) N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-7-chloro-1-benzothiophene-2-carboxamide.
31. (New) N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-7-cyano-1-benzothiophene-2-carboxamide.
32. (New) N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-7-trifluoromethyl-1-benzothiophene-2-carboxamide.
33. (New) A pharmaceutical composition comprising N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-7-fluoro-1-benzofuran-2-carboxamide and a pharmaceutically acceptable carrier.

34. (New) A pharmaceutical composition comprising N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-5-fluoro-1-benzothiophene-2-carboxamide and a pharmaceutically acceptable carrier.

35. (New) A pharmaceutical composition comprising N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-5,7-difluoro-1-benzothiophene-2-carboxamide and a pharmaceutically acceptable carrier.

36. (New) A pharmaceutical composition comprising N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-5-fluoro-1-benzofuran-2-carboxamide and a pharmaceutically acceptable carrier.

37. (New) A pharmaceutical composition comprising N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-5-chloro-1-benzofuran-2-carboxamide and a pharmaceutically acceptable carrier.

38. (New) A pharmaceutical composition comprising N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-5,7-difluoro-1-benzofuran-2-carboxamide and a pharmaceutically acceptable carrier.

39. (New) A pharmaceutical composition comprising N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-7-fluoro-1-benzothiophene-2-carboxamide and a pharmaceutically acceptable carrier.

40. (New) A pharmaceutical composition comprising N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-7-chloro-1-benzothiophene-2-carboxamide and a pharmaceutically acceptable carrier.

41. (New) A pharmaceutical composition comprising N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-7-cyano-1-benzothiophene-2-carboxamide and a pharmaceutically acceptable carrier.

42. (New) A pharmaceutical composition comprising N-[(3R)-1-Azabicyclo[2.2.2]oct-3-yl]-7-trifluoromethyl-1-benzothiophene-2-carboxamide and a pharmaceutically acceptable carrier.